UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,567	08/10/2001	Noboru Yamaguchi	212636US2SRD	3746

22850 7590 04/20/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
LEE, RICHARD J	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/925,567	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	Richard Lee	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-14 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The request filed on February 15, 2005 for a Request for Continued Examination (RCE) is acceptable and a RCE has been established. An action on the RCE follows.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 7, 8, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda et al of record (6,546,052).

Maeda et al discloses an image processing apparatus as shown in Figures 1-5, and the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as claimed in claims 1, 7, 8, and 14, comprising the same a first feature amount computing device (see texture 1200 of Figure 2 and object extractor 103 of Figure 5, column 7, lines 49-67) configured to compute a statistical feature amount for each of time-continuous frames of the video image (i.e., moving image data is being provided by camera 101 to object extractor 103, the moving image data thereby providing the time-continuous frames, see column 7, line 9 to column 8, line 11) by analyzing an input video signal representing the video image; a scene dividing device configured to divide the video image into a plurality of scenes continuous in time in accordance with the statistical feature amount, each of the scenes including one or more of the time-continuous frames (i.e., each of the images of the person as extracted by object extractor 103 represents a scene of the video, and since successive images of the person in the moving video image (time-continuous frames) are extracted, the

moving video image is thus divided into a plurality of scenes continuous in time in accordance with the statistical feature amount (image of the person), see column 7, lines 43-67); a second feature amount computing device (i.e., 126 of Figure 5, and see column 8, lines 4-11, lines 43-49) configured to compute an average feature amount for each of the scenes using the feature amount obtained by the first feature amount computing device; an encoding parameter generator (i.e., 128, 131 of Figure 5) configured to generate an encoding parameter including at least an optimum frame rate and quantization step size for each of the scenes using the average feature amount; and an encoder (i.e., 132 of Figure 5) configured to encode the input video signal in accordance with the encoding parameter generated for each of the scenes by the encoding parameter generator; wherein the statistical feature amount includes at least some of number of motion vectors, distribution, norm size, residual error after motion compensation, and variance of luminance and chrominance (see Figure 5 and columns 8-9).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 3, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al.

Maeda et al discloses substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as above, further including a scene content providing device configured to provide feature of each of the scenes to the user (see Figures 1 and 5, and columns 7-9) as claimed in claims 3 and 10.

Maeda et al does not particularly disclose, though, a scene selector to select the scenes in accordance with operation information obtained by editing performed by an user and to provide the selected scenes to the encoding parameter generator as claimed in claims 2 and 9. It is noted that the selected scenes of Maeda et al are performed within object extractor 103 in accordance with an operation information obtained by an automatic process (see column 7) to be provided to encoding parameter generator (128, 131 of Figure 5), and not in accordance with operation information obtained by editing performed by an user as claimed. It is however not invention to make something manual from an automatic process, and vice versa (see In re Venner, 120 USPQ 192 (CCPA 1958)). Therefore, it would have been obvious to one of ordinary skill in the art, having the Maeda et al reference in front of him/her and the general knowledge of automatic and manual processes, would have had no difficulty in replacing the automatic scene selection of Maeda with a manual process involving the selection of scenes in accordance with operation information obtained by editing performed by an user and to provide the selected scenes to the encoding parameter generator of Maeda for the same well known user manipulation purposes as claimed.

6. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al as applied to claims 1-3, 8-10, and 14 in the above paragraphs (3) and (5), and further in view of Sekiguchi et al of record (6,611,628).

Maeda et al discloses substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as above, but does not particularly disclose wherein the scene content providing device provides a key-frame of each scene or a thumb nail thereof to the user as claimed in claims 4 and 11. The

particular use of key frames of scenes and thumb nails are however old and well recognized in the art, as exemplified by Sekiguchi et al (see Figure 8 and column 7, lines 36+). Therefore, it would have been obvious to one of ordinary skill in the art, having the Maeda et al and Sekiguchi et al references in front of him/her and the general knowledge of key frame and thumb nail processings, would have had no difficulty in providing the key frame of scenes as taught by Sekiguchi et al for the video encoder of Maeda et al for the same well known scene identification of objects of interest purposes as claimed.

7. Claims 5, 6, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al and Sekiguchi et al as applied to claims 1-4, 8-11, and 14 in the above paragraphs (3), (5), and (6), and further in view of Nagasaka et al of record (6,400,890).

The combination of Maeda et al and Sekiguchi et al discloses substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as above, but does not wherein the scene content providing device provides a symbol indicating the average feature amount or feature obtained for each scene by the second feature amount computing device to the user as claimed in claims 5, 6, 12, and 13. However, such technical features are well known and made obvious by Nagasaka et al (see 802 of Figure 17 and column 14, lines 37-65). Therefore, taking the combined teaching of Maeda et al, Sekiguchi et al, and Nagasaka et al as a whole, it would have been obvious to modify the video encoder of Maeda and Sekiguchi et al to include the symbol indicating the feature obtained for each scene as taught in Nagasaka et al. Doing so would provide the user an added function in the display, and thereby including a quick identification of a scene of interest.

8. Regarding the applicants' arguments at pages 6-7 of the amendment filed February 15, 2005 concerning in general that "... The claims as currently written are believed to clearly distinguish over the applied art to Maeda that discloses extracting a plurality of objects from a single frame, and not from "time-continuous frames" ... in Maeda an object and a background are separately captured, encoded, and then combined. In Maeda the object and background of a single frame are separately extracted and then encoded. That is, Maeda extracts a plurality of objects from a single frame. This feature is in contrast to the claims as currently written ... In contrast to Maeda, in the claims as currently written a video image including time-continuous frames is divided into a plurality of scenes continuous in time, each scene containing one or more of the time-continuous frames ...", the Examiner respectfully disagrees. Though it may be true that Maeda captures the object and background separately, and extracts a plurality of objects from a single frame, Maeda clearly teaches the extraction of the images of the person from object extractor 103 through time continuous frames due to the fact that moving input images are being input to the object extractor 103 and the object images from the object extractor 103 are compressed by MPEG-4 (see column 7, line 9 to column 8, line 11). In other words, each of the images of the person as extracted by object extractor 103 of Maeda represents a scene of the video, and since successive images of the person in the moving video image (time-continuous frames) are extracted, the moving video image is thus divided into a plurality of scenes continuous in time in accordance with the statistical feature amount (image of the person), as claimed. For the reasons above, it is submitted that the claimed invention is rendered anticipated by Maeda.

Regarding the applicants' arguments at pages 7-8 of the amendment filed February 15, 2005 concerning in general that no teachings in Sekiguchi or Nagasaka can overcome the deficiencies in Maeda, the Examiner respectfully disagrees for the above reasons.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Richard Lee/rl

4/15/05